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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,310	07/10/2003	Thomas Ferianz	1406/154	3585

25297 7590 04/05/2007
JENKINS, WILSON, TAYLOR & HUNT, P. A.
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DURHAM, NC 27707

EXAMINER

JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2614

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/617,310	Applicant(s) FERIANZ, THOMAS	
	Examiner Alexander Jamal	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-15** rejected under 35 U.S.C. 102(e) as being anticipated by Vanderbauwhede et al. (6917682).

As per **claim 1**, Vanderbauwhede discloses a transceiver for a DSL line with an impedance (ABSTRACT). The device comprises a transmitter 8 (Fig. 1), and an analog echo cancellation filter that cancels the transmit echo from the receive path (Fig. 2). The transmit stage has programmable (synthesized) impedance Z2 (Fig. 3) that is coupled to hybrid impedance Z2, ZB, RX1, RX0 that is an analog echo cancellation filter.

As per **claims 2,3**, the analog filter is programmable (Zb in Fig. 3). The variable analog impedances will provide programmable pole and zero points.

As per **claim 4**, the line driver and receivers are both differential.

As per **claim 5**, the resistor values will provide a real impedance.

As per **claim 6**, the transceiver comprises first two-pole connection at 15,16 (Fig. 1), 2nd two-pole connection at 2 and the third two-pole connection connected to analog echo cancellation filter 20.

Art Unit: 2614

As per **claim 7**, the first and second two-pole connections have resistors 12, 12A, and Z2 in series.

As per **claim 8**, the first and second connections have a first and second series cross-coupling resistors coupled in between them (Fig. 2).

As per **claim 9**, the third connection is tapped off from the cross-coupled resistors (Fig. 2).

As per **claim 10**, The device has the same structure as applicant's hybrid echo canceller, the synthesized impedance will follow the same resistance formula when calculating the synthesized impedance.

As per **claim 11**, the hybrid circuit comprises real resistors R0, R1, R2 in Fig. 3.

As per **claim 12**, the hybrid is symmetrical.

As per **claim 13**, the crosscoupled resistors will comprise a reception filter to filter the received signal.

As per **claim 14**, the device comprises subtraction circuit 20 to subtract the filtered transmit signal from the received signal to remove the transmit echo.

As per **claim 15**, the system may be a DSL device (ABSTRACT).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 571-272-7498. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 571-272-7499. The fax phone numbers for the

Art Unit: 2614

organization where this application or proceeding is assigned are **571-273-8300** for regular communications and **571-273-8300** for After Final communications.

AJ
April 2, 2007


CARLOS KUTZ
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 2800